FIG. 1

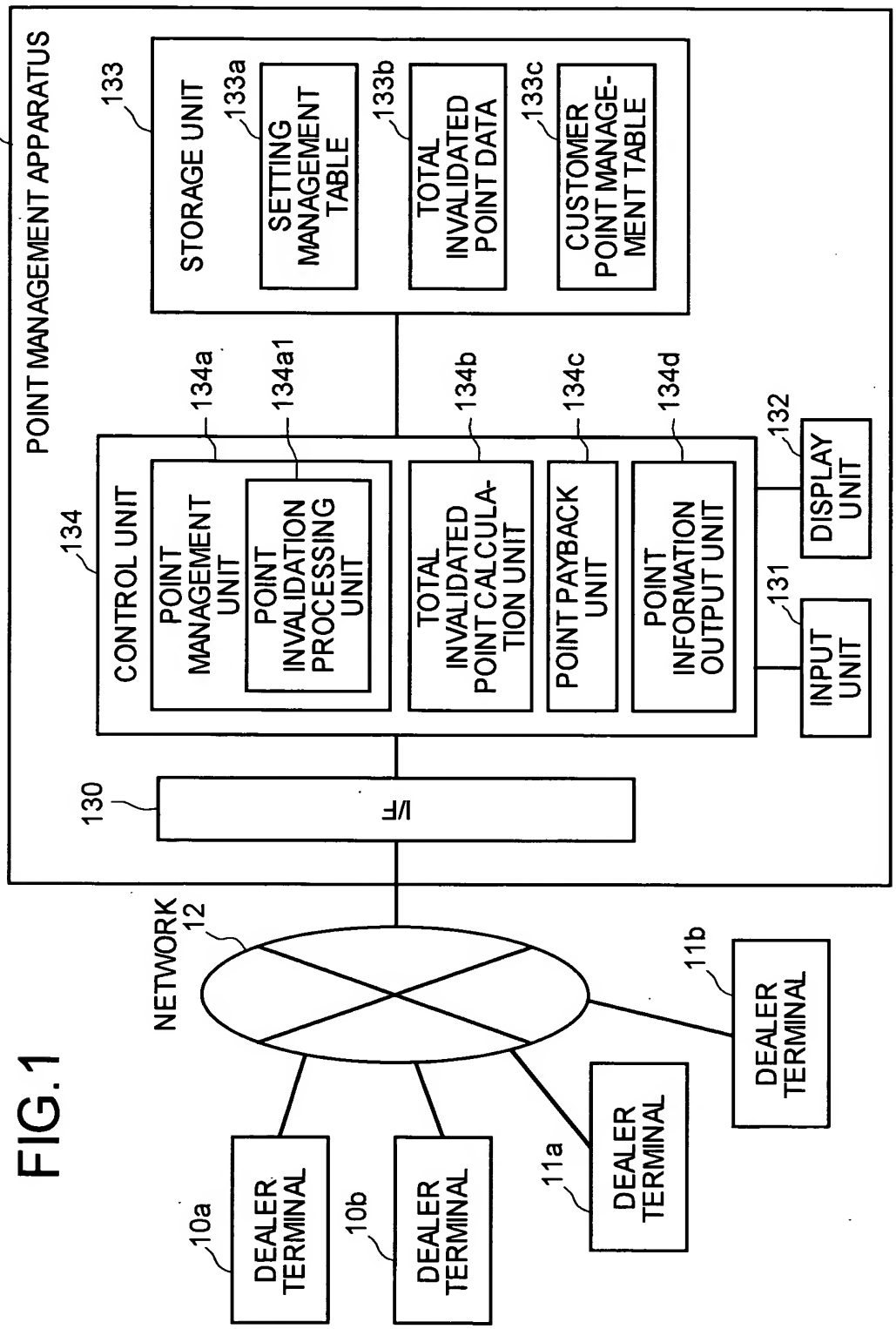
13
POINT MANAGEMENT APPARATUS
133
STORAGE UNIT
133a
SETTING MANAGEMENT TABLE
133b
TOTAL INVALIDATED POINT DATA
133c
CUSTOMER POINT MANAGE-MENT TABLE
134
CONTROL UNIT
134a
POINT MANAGEMENT UNIT
134a1
POINT INVALIDATION PROCESSING UNIT
134b
TOTAL INVALIDATED POINT CALCULA-TION UNIT
134c
POINT PAYBACK UNIT
134d
POINT INFORMATION OUTPUT UNIT
132
DISPLAY UNIT
131
INPUT UNIT
130
I/F
NETWORK
12
10a
DEALER TERMINAL
10b
DEALER TERMINAL
11a
DEALER TERMINAL
11b
DEALER TERMINAL

FIG.2

INVALIDATION PERIOD	INVALIDATION RATIO	VALID FLAG
THREE WEEKS	20%	1
SIX WEEKS	40%	0
• • •	• • •	• • •

FIG.3

PAYBACK PERIOD	PAYBACK POINT RATIO	VALID FLAG
LESS THAN ONE WEEK	30%	1
ONE WEEK OR MORE AND LESS THAN TWO WEEKS	10%	
TWO WEEKS OR MORE	0%	
LESS THAN THREE WEEKS	10%	0
THREE WEEKS OR MORE AND LESS THAN SIX WEEKS	5%	
SIX WEEKS OR MORE	0%	
• • •	• • •	• • •
• • •	• • •	
• • •	• • •	

FIG.4

POINT ALLOTTING PERIOD	POINT ALLOTTING RATIO	VALID FLAG
NO TIME LIMIT	10%	1
LESS THAN ONE WEEK	20%	0
ONE WEEK OR MORE AND LESS THAN TWO WEEKS	10%	
TWO WEEKS OR MORE	5%	
• • •	• • •	• • •
• • •	• • •	
• • •	• • •	

FIG.5

PAYBACK DATE
2002/11/01
2002/12/01
2003/01/01
• • •

FIG.6A

USER ID
LATEST PURCHASING DATE
POINTS
PAYBACK SCORES

FIG.6B

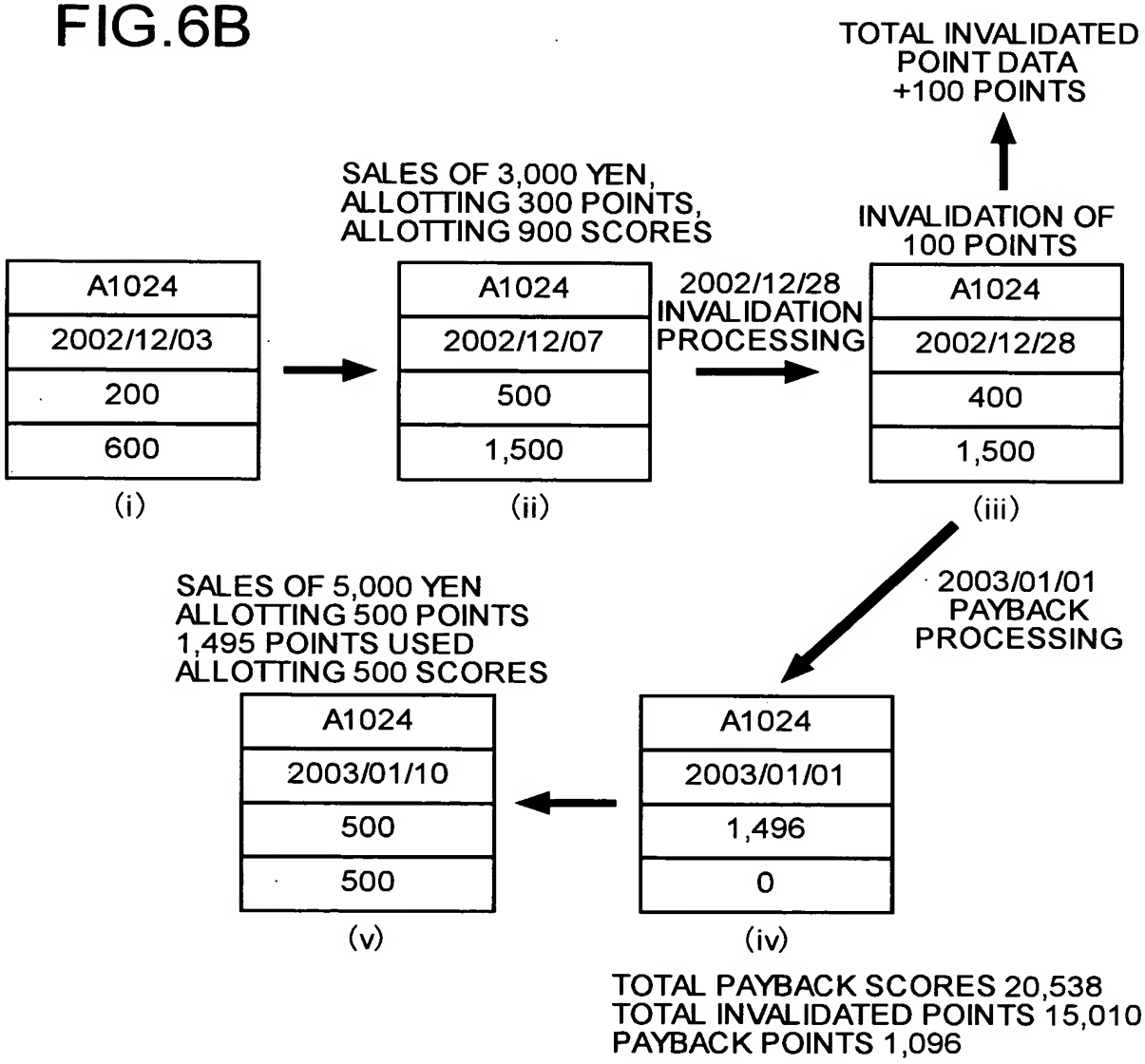

FIG.7

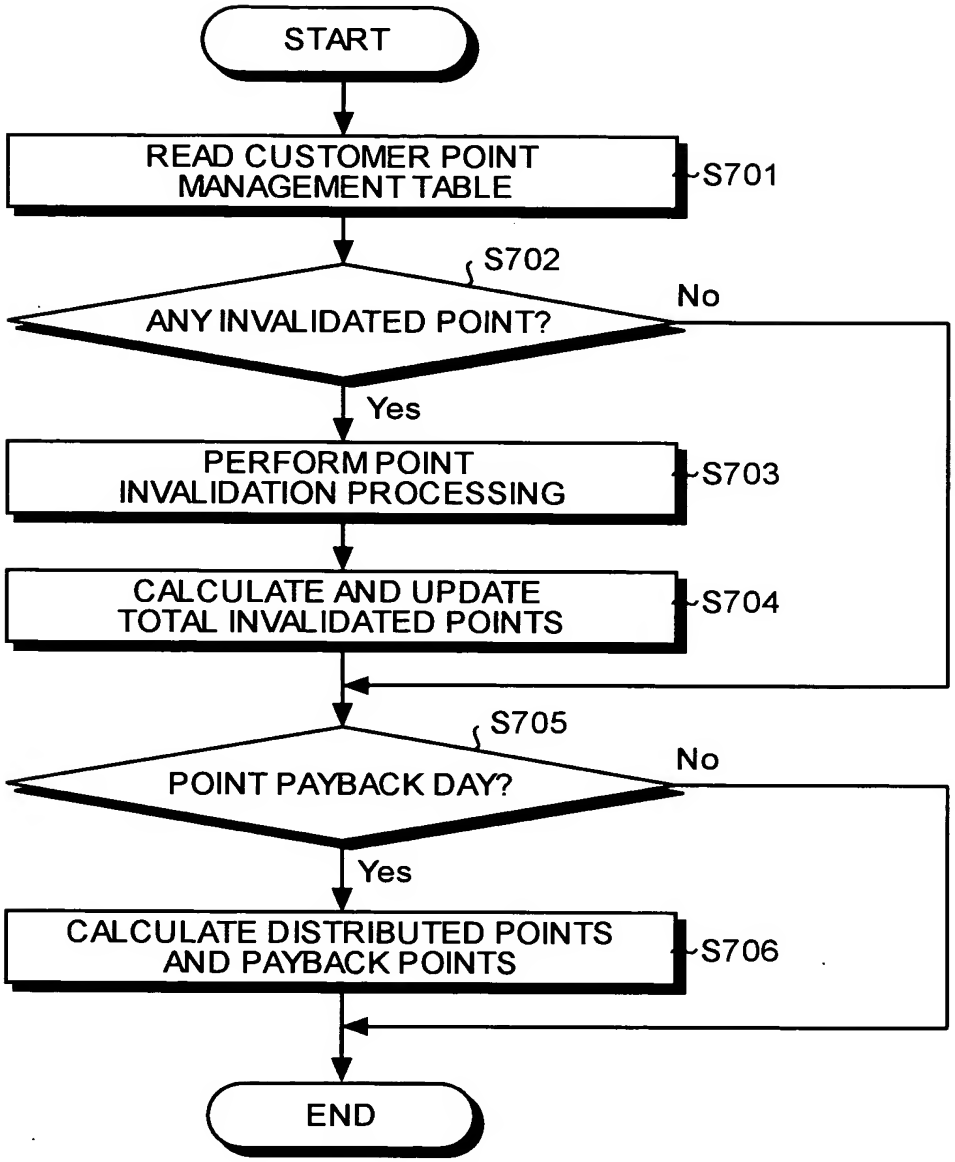
START
READ CUSTOMER POINT MANAGEMENT TABLE
S701
S702
ANY INVALIDATED POINT?
No
Yes
PERFORM POINT INVALIDATION PROCESSING
S703
CALCULATE AND UPDATE TOTAL INVALIDATED POINTS
S704
S705
POINT PAYBACK DAY?
No
Yes
CALCULATE DISTRIBUTED POINTS AND PAYBACK POINTS
S706
END

FIG.8

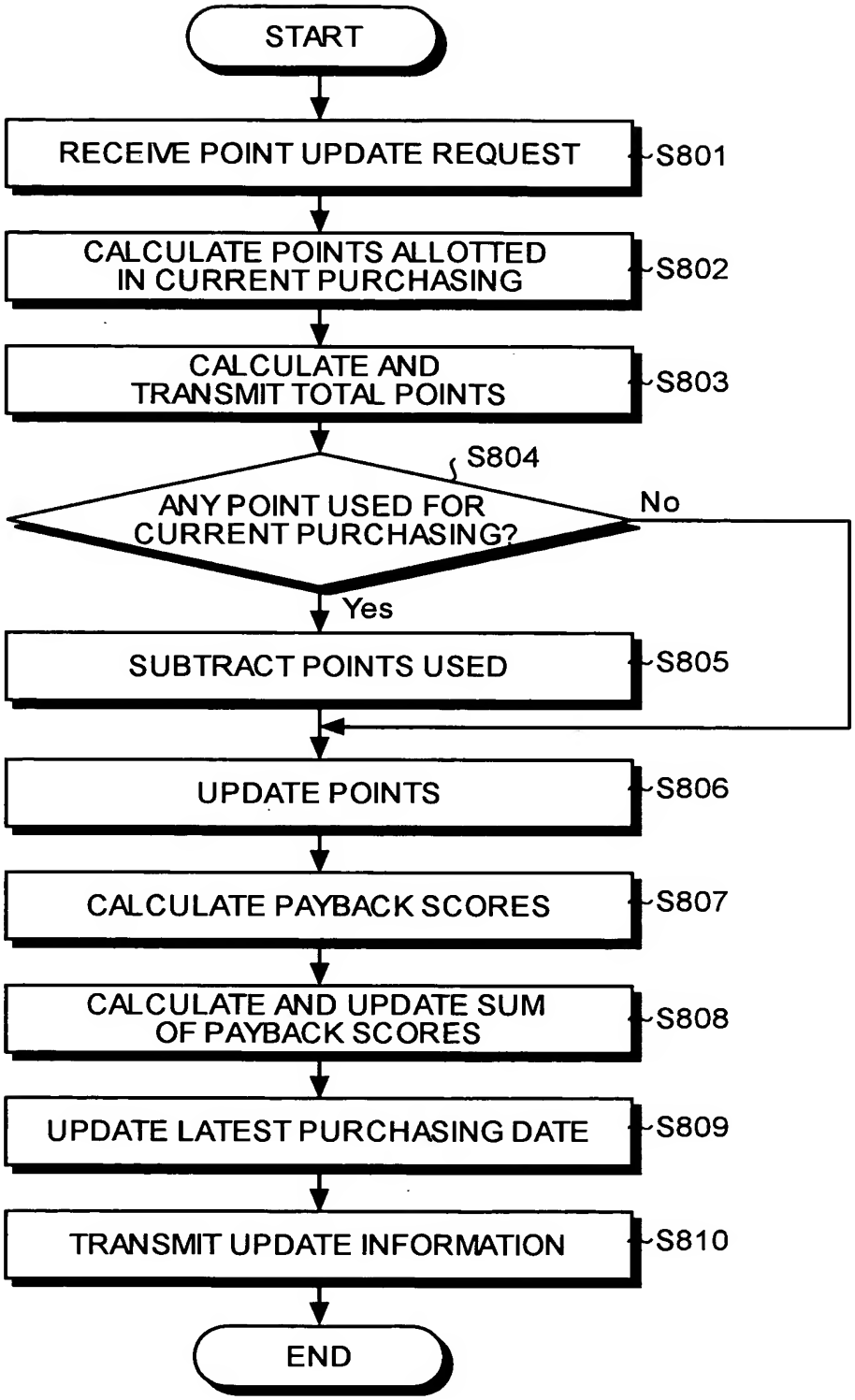
START
RECEIVE POINT UPDATE REQUEST
S801
CALCULATE POINTS ALLOTTED IN CURRENT PURCHASING
S802
CALCULATE AND TRANSMIT TOTAL POINTS
S803
S804
ANY POINT USED FOR CURRENT PURCHASING?
No
Yes
SUBTRACT POINTS USED
S805
UPDATE POINTS
S806
CALCULATE PAYBACK SCORES
S807
CALCULATE AND UPDATE SUM OF PAYBACK SCORES
S808
UPDATE LATEST PURCHASING DATE
S809
TRANSMIT UPDATE INFORMATION
S810
END

FIG.9

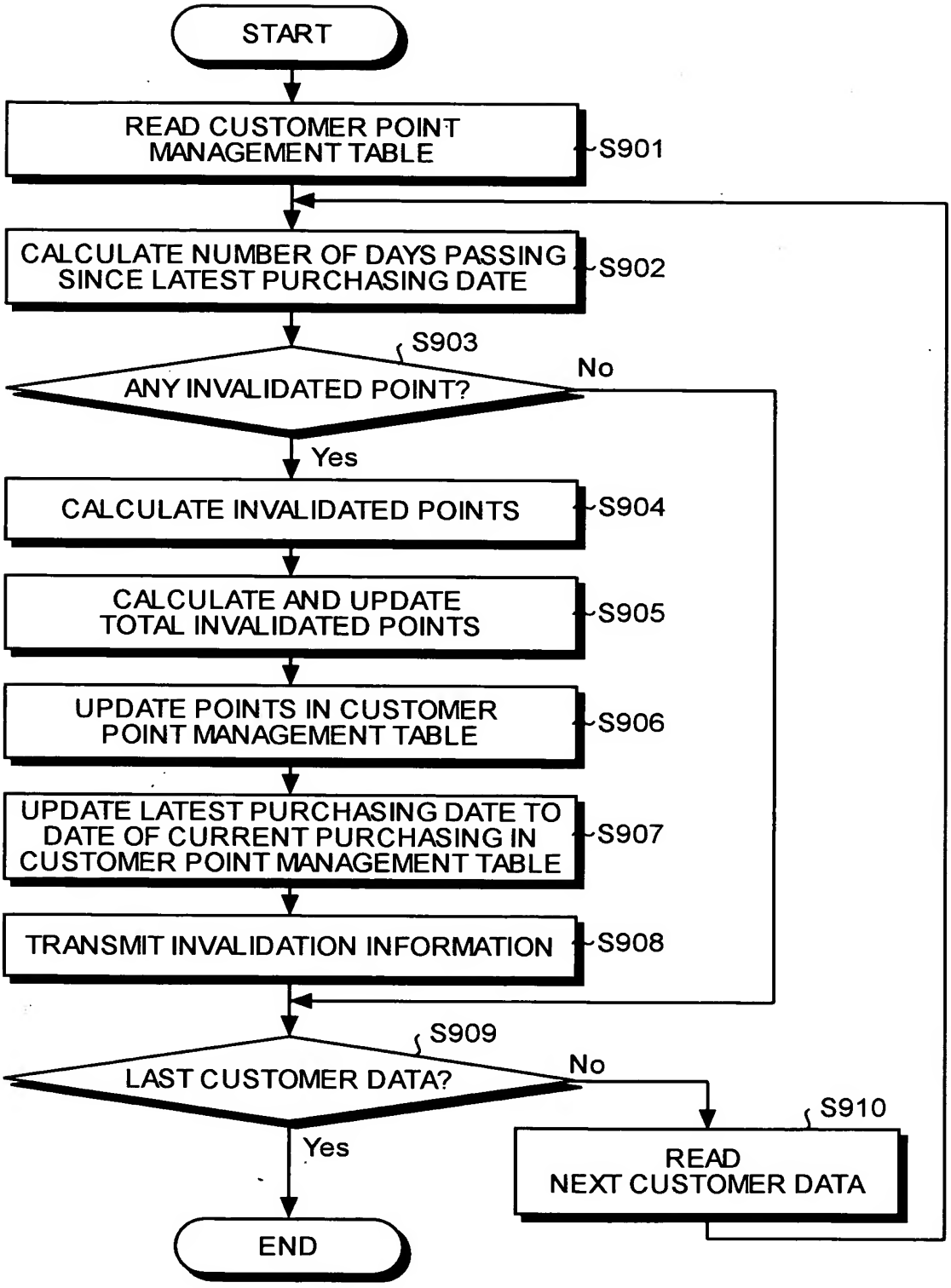
START
READ CUSTOMER POINT MANAGEMENT TABLE
S901
CALCULATE NUMBER OF DAYS PASSING SINCE LATEST PURCHASING DATE
S902
S903
ANY INVALIDATED POINT?
No
Yes
CALCULATE INVALIDATED POINTS
S904
CALCULATE AND UPDATE TOTAL INVALIDATED POINTS
S905
UPDATE POINTS IN CUSTOMER POINT MANAGEMENT TABLE
S906
UPDATE LATEST PURCHASING DATE TO DATE OF CURRENT PURCHASING IN CUSTOMER POINT MANAGEMENT TABLE
S907
TRANSMIT INVALIDATION INFORMATION
S908
S909
LAST CUSTOMER DATA?
No
Yes
S910
READ NEXT CUSTOMER DATA
END

FIG.10

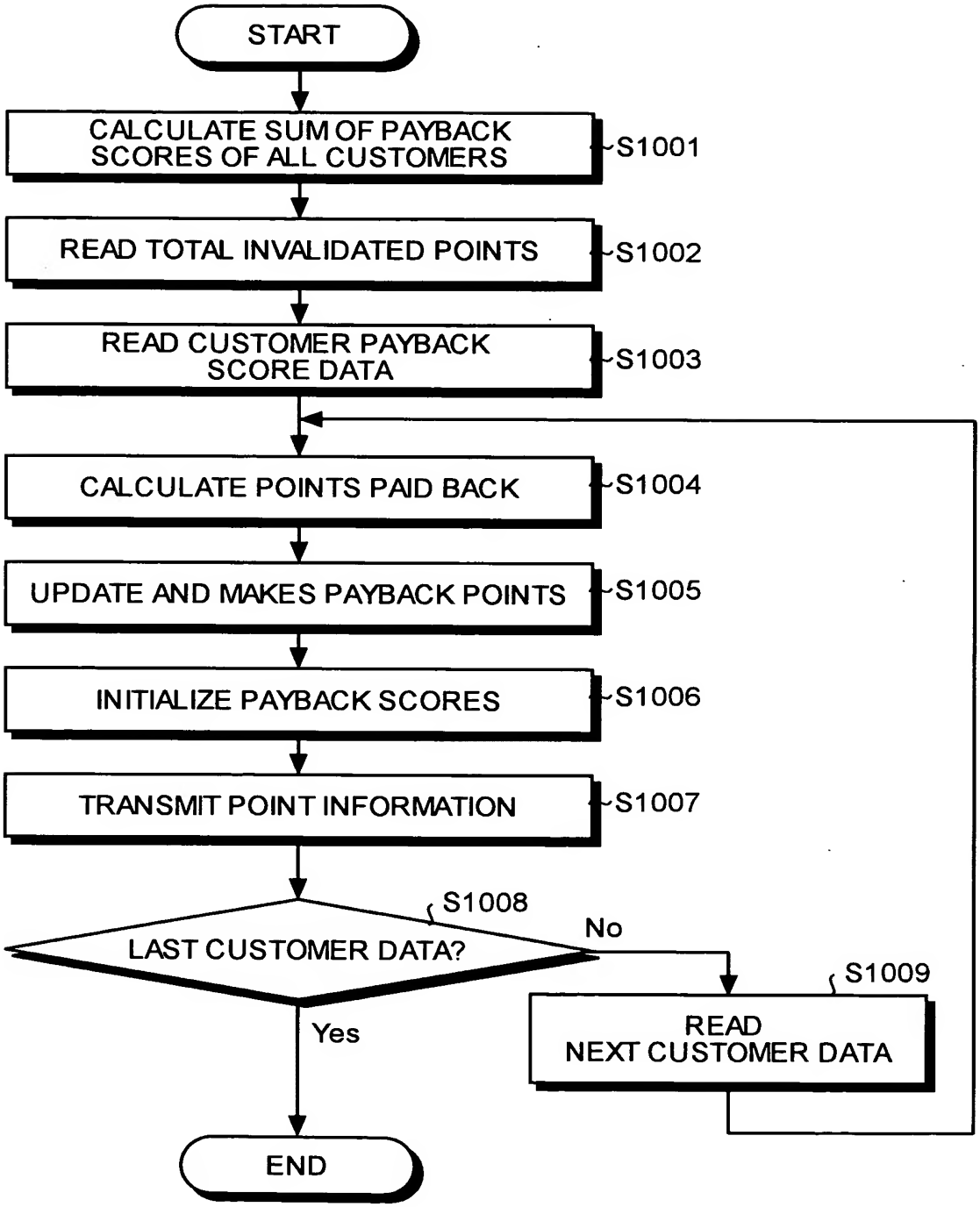
START
CALCULATE SUM OF PAYBACK SCORES OF ALL CUSTOMERS
S1001
READ TOTAL INVALIDATED POINTS
S1002
READ CUSTOMER PAYBACK SCORE DATA
S1003
CALCULATE POINTS PAID BACK
S1004
UPDATE AND MAKES PAYBACK POINTS
S1005
INITIALIZE PAYBACK SCORES
S1006
TRANSMIT POINT INFORMATION
S1007
S1008
LAST CUSTOMER DATA?
No
Yes
S1009
READ NEXT CUSTOMER DATA
END

FIG.11

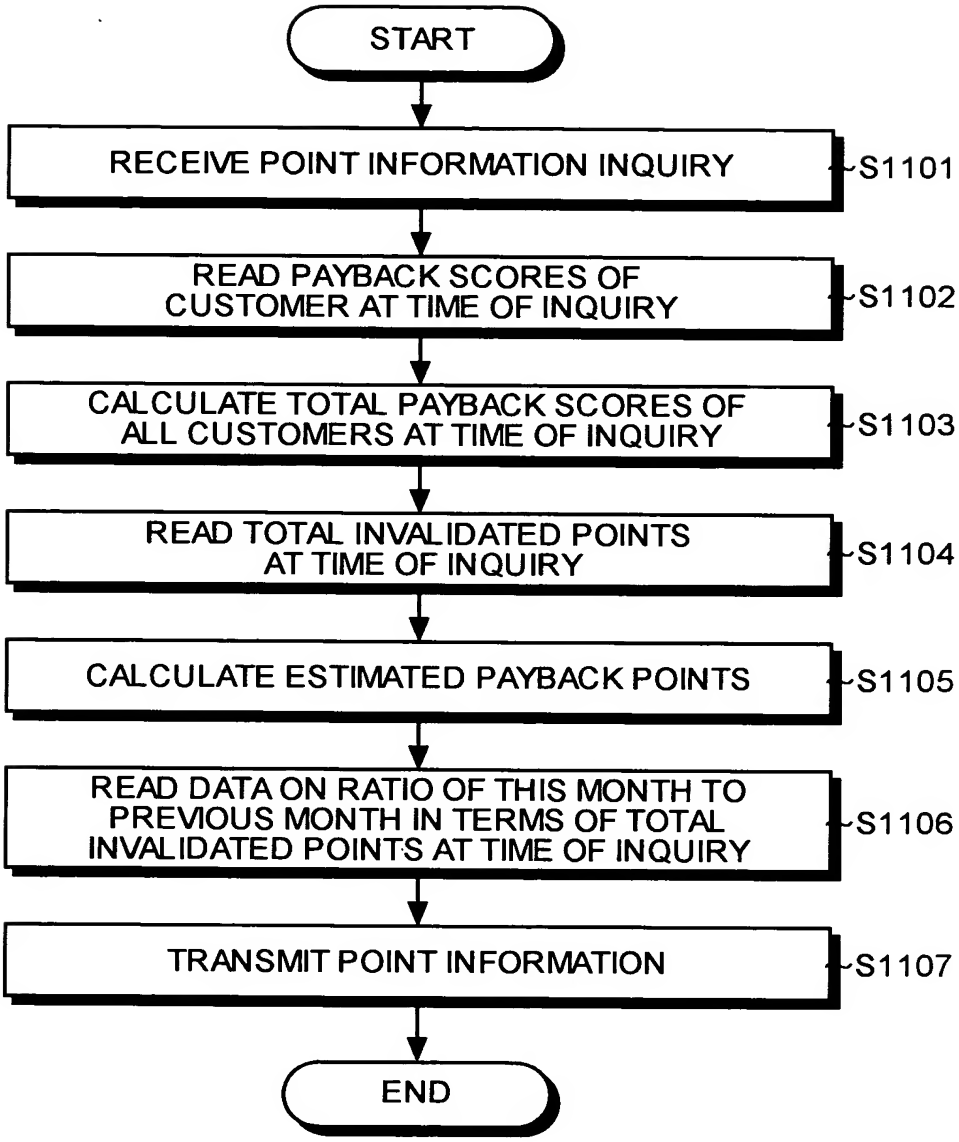
START
RECEIVE POINT INFORMATION INQUIRY
S1101
READ PAYBACK SCORES OF CUSTOMER AT TIME OF INQUIRY
S1102
CALCULATE TOTAL PAYBACK SCORES OF ALL CUSTOMERS AT TIME OF INQUIRY
S1103
READ TOTAL INVALIDATED POINTS AT TIME OF INQUIRY
S1104
CALCULATE ESTIMATED PAYBACK POINTS
S1105
READ DATA ON RATIO OF THIS MONTH TO PREVIOUS MONTH IN TERMS OF TOTAL INVALIDATED POINTS AT TIME OF INQUIRY
S1106
TRANSMIT POINT INFORMATION
S1107
END

FIG. 12

PERIOD	2002/10/01 ~ 2002/10/31	2002/11/01 ~ 2002/11/31	2002/12/01 ~ 2002/12/31	2003/01/01 ~ 2003/01/31
TOTAL INVALIDATED POINTS	12,100	11,305	15,010	16,370
RATIO OF MONTH TO PREVIOUS MONTH	1.05	0.93	1.33	1.09

FIG.13

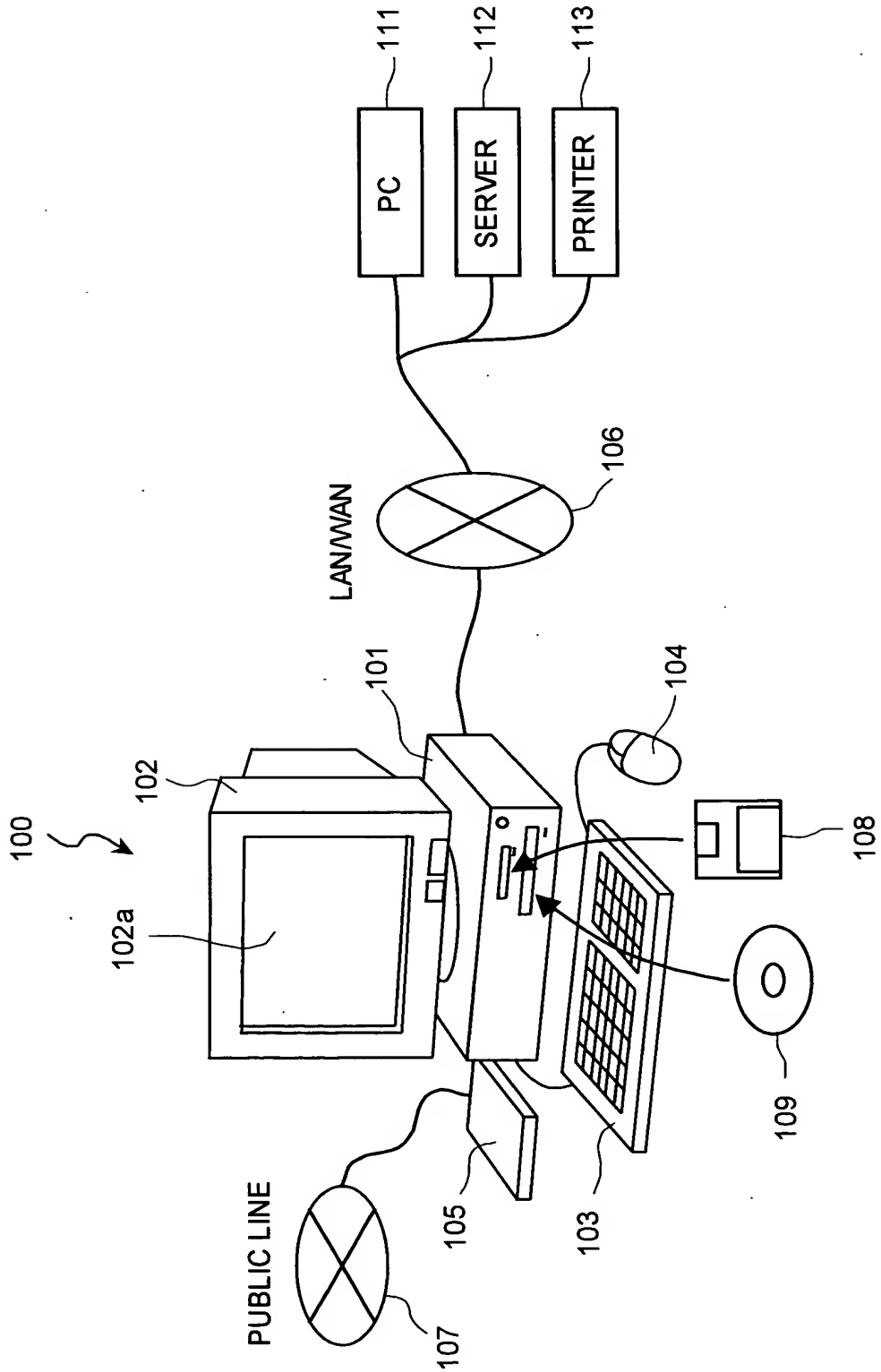
111
112
113
PC
SERVER
PRINTER
LAN/WAN
106
101
104
100
102
102a
108
PUBLIC LINE
107
105
103
109

FIG. 14

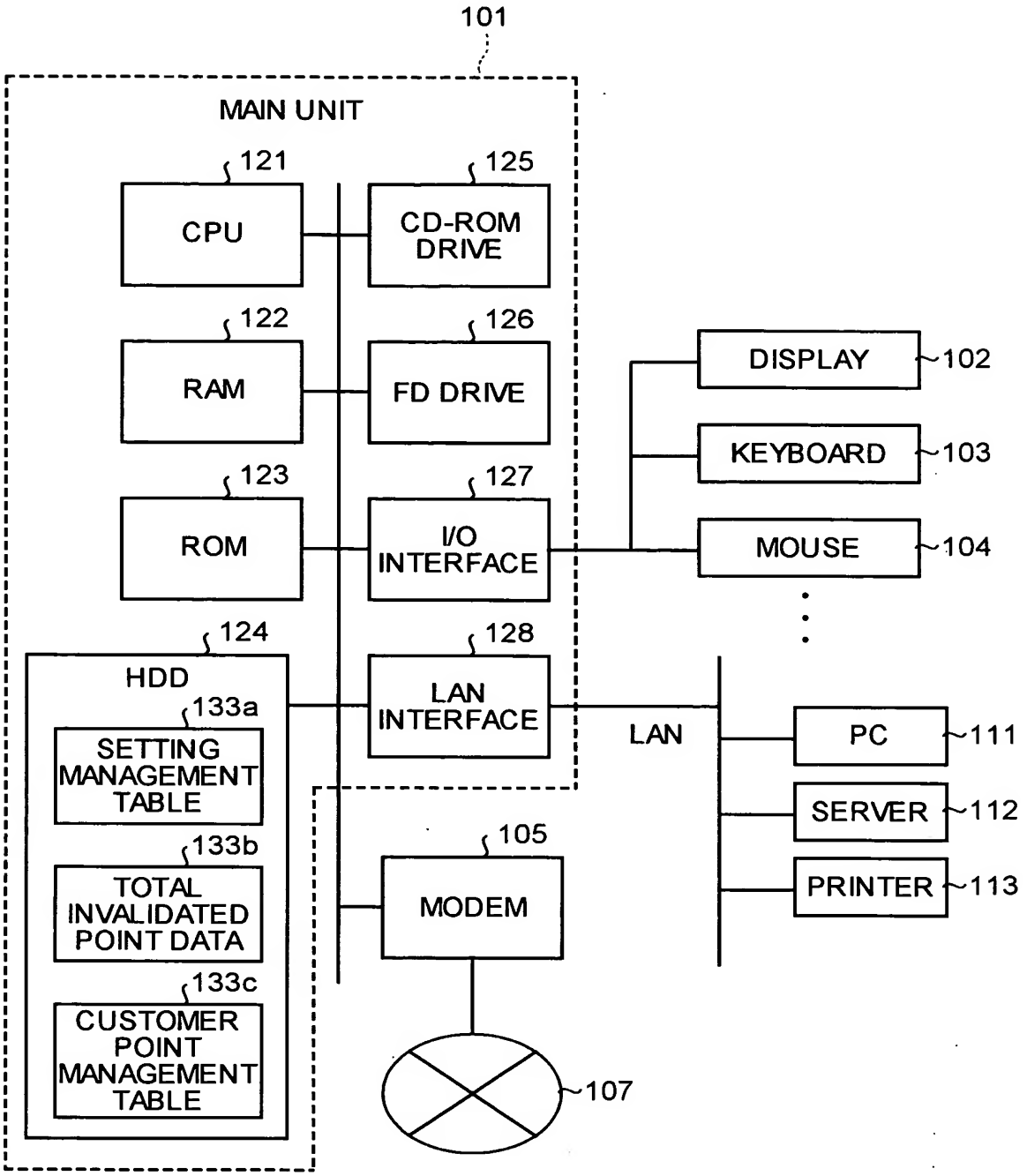
101
MAIN UNIT
121
CPU
125
CD-ROM DRIVE
122
RAM
126
FD DRIVE
123
ROM
127
I/O INTERFACE
124
HDD
133a
SETTING MANAGEMENT TABLE
133b
TOTAL INVALIDATED POINT DATA
133c
CUSTOMER POINT MANAGEMENT TABLE
128
LAN INTERFACE
105
MODEM
107
DISPLAY
102
KEYBOARD
103
MOUSE
104
LAN
PC
111
SERVER
112
PRINTER
113

FIG.15A

USER ID		
PURCHASING DATE 1	POINT 1	TOTAL POINTS
PURCHASING DATE 2	POINT 2	
PURCHASING DATE 3	POINT 3	
• • •	• • •	
PAYBACK SCORES		

FIG.15B

A1024		
2002/12/03	200	561
2002/12/07	500	
2003/01/10	500	
1500		